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Reply to Final Office Action with RCE

REMARKS

The Examiner is thanked for the performance of a thorough search and for considering the references submitted in the Information Disclosure Statement that was filed on February 7, 2006.

Claims 1, 9, 16, 23, and 27-30 have been amended. No claims have been added or canceled. Hence, Claims 1-3, 6-18, and 21-30 are pending in the subject application.

Each issue raised in the final Office Action mailed May 16, 2006 is addressed hereinafter.

I.   INTERVIEW SUMMARY

A telephone interview in the subject application was held on August 10, 2006. Examiner Tran and Applicants' representatives Christopher J. Palermo and Stoycho D. Draganoff attended the interview. Claims 1 and 9 were discussed. The reference discussed was Proctor, U.S. Patent No. 6,530,024 (hereinafter "PROCTOR").

The Examiner indicated that Claim 1 (with the proposed amendment) appears to overcome the cited art but would be subject to an updated search. (The proposed amendment to Claim 1 has been officially submitted in this paper.) With respect to Claim 9, the Examiner requested clarification of the term "network performance information". The Applicants representatives pointed out to paragraph [0046] in the Specification that includes examples of network performance information, and proposed to amend Claim 9 accordingly. The Examiner indicated that as amended Claim 9 would appear to overcome the cited art but would be subject to an updated search. (The proposed amendment to Claim 9 has been officially submitted in this paper.)

II.   ISSUES RELATING TO THE CITED ART

A.   INDEPENDENT CLAIM 1

Claim 1 has been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by

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PROCTOR.

Claim 1 comprises the features of:

...

creating and storing_a risk level of the user based on the second set of data, wherein the second duration of time is sufficient to collect historical data regarding past malicious activities of the user, and **wherein the risk level is a discrete value representing a long-term measurement of the likelihood of the user harming the network;**

creating and storing a current alert level based on the first set of data, wherein the first duration of time is of a length appropriate for assessing current activities of the user, and **wherein the current alert level is a discrete value representing a current measurement of the likelihood of the user negatively affecting the network;**

.... .

PROCTOR does not teach, describe, or suggest the above features of Claim 1.

In general, PROCTOR describes a system with an adaptive feedback mechanism according to which, when a "security occurrence" is detected, one or more security-related policies (i.e. audit, collection, detection, or security policies) can be modified and the modified policies can be implemented in the network. (PROCTOR, Abstract; col. 2, lines 51-60.) Specifically, PROCTOR describes creating event log files and auditing events specified in an audit policy, collecting records from the event log according to a collection policy, performing security analysis based on the records collected from the audit logs according to a detection policy, and updating some or all of the policies depending on the results from the security analysis. (See, for example, Figs. 9 and 10; col. 11, lines 18-48.) Thus, the PROCTOR system determines a security response action based on detecting a "security occurrence", and not on any historical risk levels associated with a user (as featured in Claim 1) or on network health levels (as featured in Claim 9).

As amended, Claim 1 clarifies features that were already included in the claim and that already differed from PROCTOR. Specifically, Claim 1 includes the features of: creating and storing a risk level of a user, where the risk level is a discrete value representing a long-term

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measurement of the likelihood of the user harming the network; and creating and storing a current alert level, where the current alert level is a discrete value representing a current measurement of the likelihood of the user negatively affecting the network. Further, Claim 1 includes the feature of automatically deciding on a course of action based on the risk level and the current alert level. Thus, in Claim 1 a course of action is automatically determined based on two discrete values, one of which is a risk level that represents the historical long-term likelihood of that user harming the network. Also, in Claim 1 the determined course of action may be adverse to the user even though one of the discrete values – the current alert level – is not sufficient on its own to establish whether the user is performing a malicious action.

PROCTOR does not teach or suggest the above features of Claim 1. Specifically, PROCTOR does not describe that a course of action is determined based on two separate and discrete values that represent user risk level and current alert level. Further, PROCTOR does not describe or suggest that a user risk level (which is assessed based on the long-term historical activities of a user) is created, stored, and subsequently used to decide on a course of action that is implemented by network infrastructure elements.

For the above reasons, PROCTOR does not teach all of the features of Claim 1. Therefore, Claim 1 is patentable under 35 U.S.C. § 102(e) over PROCTOR. Reconsideration and withdrawal of the rejection of Claim 1 is respectfully requested.

B.   INDEPENDENT CLAIMS 16 AND 29

Claims 16 and 29 have been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by PROCTOR.

Claims 16 and 29 include features similar to the features of Claim 1 discussed above, except in the context of a method and an apparatus. Thus, Claims 16 and 29 are patentable under

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35 U.S.C. § 102(e) over PROCTOR for at least the reasons given above with respect to Claim 1.

Reconsideration and withdrawal of the rejections of Claims 16 and 29 is respectfully requested.

C. INDEPENDENT CLAIM 9

Claim 9 has been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by

PROCTOR.

Claim 9 comprises the features of:

> ...
> assessing a health level based on the network performance information and the
>   resource performance information;
> wherein **the network performance information**, on which the health level is based,
>   **comprises at least one of packet latency information, jitter information,**
>   **packet loss probability (PLP) information, network throughput information,**
>   **average network downtime information, mean time to repair information,**
>   **and mean time between failure information;**
> wherein **the resource performance information**, on which the health level is
>   based, **comprises at least one of DHCP server utilization information**
>   **and ARP table utilization information;**
> .... .

PROCTOR does not teach, describe, or suggest the above features of Claim 9.

The Office Action asserts that PROCTOR describes these features of Claim 9 in col. 2,

lines 47-50. This assertion is incorrect. PROCTOR describes that the definition of security-

related policies (i.e. audit, collection, detection, or security policies) "is usually made based on

the level of security desired for the network, considering the overhead associated with

monitoring network activities and detection of security occurrences." (Col. 2, lines 47-50.) It

seems that the Office Action incorrectly interprets the <u>computing</u> overhead (which is incurred for

monitoring activities and for detecting security occurrences) to be equivalent to the network

performance information featured in Claim 9.

As amended, Claim 9 clarifies the network performance information feature that was

already included in the claim and that already differed from PROCTOR. Specifically, Claim 9

includes the feature of assessing a health level based on network performance information and

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resource performance information, where the network performance information comprises at least one of packet latency information, jitter information, packet loss probability (PLP) information, network throughput information, average network downtime information, mean time to repair information, and mean time between failure information. Further, in Claim 9 the resource performance information comprises at least one of DHCP server utilization information and ARP table utilization information.

PROCTOR does not teach or suggest the above features of Claim 9. Specifically, there is nothing in PROCTOR that indicates assessing a health level of a network based on any transport protocol level or network protocol level information, such as, for example, packet latency, jitter, packet loss probability, network throughput, and average network downtime. Further, there is nothing in PROCTOR that indicates assessing the health level based on DHCP server utilization and/or ARP table utilization.

For the above reasons, PROCTOR does not teach all of the features of Claim 9. Thus, Claim 9 is patentable under 35 U.S.C. § 102(e) over PROCTOR. Reconsideration and withdrawal of the rejection of Claim 9 is respectfully requested.

D.   INDEPENDENT CLAIMS 23 AND 30

Claims 23 and 30 have been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by PROCTOR.

Claims 23 and 30 include features similar to the features of Claim 9 discussed above, except in the context of a method and an apparatus. Thus, Claims 23 and 30 are patentable under 35 U.S.C. § 102(e) over PROCTOR for at least the reasons given above with respect to Claim 9. Reconsideration and withdrawal of the rejections of Claims 23 and 30 is respectfully requested.

E.   INDEPENDENT CLAIMS 27 AND 28

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Claims 27 and 28 have been rejected as allegedly unpatentable under 35 U.S.C. § 103(a) over PROCTOR considered alone.

Claims 27 and 28 include features similar to the features of Claim 1 discussed above. Since PROCTOR does not describe or suggest these features, Claims 27 and 28 are patentable under 35 U.S.C. § 103(a) over PROCTOR for at least the reasons given above with respect to Claim 1.

Further, each of Claims 27 and 28 introduces one or more additional features that are not described or suggested by PROCTOR, thus independently rendering the claim patentable over PROCTOR. Examples of such additional features include, but are not limited to, a fault management system and the functionalities thereof, and a performance management system and the functionalities thereof. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those features is not included at this time. Therefore, it is respectfully submitted that Claims 27 and 28 are allowable for the reasons given above with respect to Claim 1. Reconsideration and withdrawal of the rejections of Claims 27 and 28 is respectfully requested.

F.   DEPENDENT CLAIMS 2-3, 6-8, 17-18, AND 21-22

Claims 2-3, 6-8, 17-18, and 21-22 have been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by PROCTOR.

Each of Claims 2-3, 6-8, 17-18, and 21-22 depends from one of independent Claims 1 and 16, and therefore includes each and every feature of the independent base claim. Thus, each of Claims 2-3, 6-8, 17-18, and 21-22 is allowable for the reasons given above for Claims 1 and 16. In addition, each of Claims 2-3, 6-8, 17-18, and 21-22 introduces one or more additional features that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those

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features is not included at this time. Therefore, it is respectfully submitted that Claims 2-3, 6-8, 17-18, and 21-22 are allowable for the reasons given above with respect to Claims 1 and 16. Reconsideration and withdrawal of the rejections of Claims 2-3, 6-8, 17-18, and 21-22 is respectfully requested.

G.   DEPENDENT CLAIMS 10-12, 15, AND 24-25

Claims 10-12, 15, and 24-25 have been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by PROCTOR.

Each of Claims 10-12, 15, and 24-25 depends from one of independent Claims 9 and 23, and therefore includes each and every feature of the independent base claim. Thus, each of Claims 10-12, 15, and 24-25 is allowable for the reasons given above for Claims 9 and 23. In addition, each of Claims 10-12, 15, and 24-25 introduces one or more additional features that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those features is not included at this time. Therefore, it is respectfully submitted that Claims 10-12, 15, and 24-25 are allowable for the reasons given above with respect to Claims 9 and 23. Reconsideration and withdrawal of the rejections of Claims 10-12, 15, and 24-25 is respectfully requested.

III.   CONCLUSION

The Applicants believe that all issues raised in the final Office Action have been addressed. Entry of the Request for Continued Examination filed concurrently herewith is respectfully requested. Further, for the reasons set forth above, the Applicants respectfully submit that all pending claims are in condition for allowance. Reconsideration of the present application is respectfully requested in light of the amendments and remarks herein.
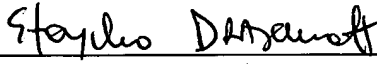
The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

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A petition for extension of time, to the extent necessary to make this reply timely filed, is

hereby made. If applicable, a law firms check for the petition for extension of time fee is

enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of

this application, the Commissioner is hereby authorized to charge any applicable fees and to

credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP

Dated: August 14, 2006

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